

Serial No.: 10/708,293
Art. Unit: 3754
Examiner: P. Hirsch
November 17, 2004
Page 2 of 5

IN THE CLAIMS:

1-20. (Cancelled).

21. (New) A seat ring for a ball valve comprising:
a first end and a second end;
the first end having a sealing surface configured to receive a portion of a ball member;
the second end having an annular flange with a cut out portion and a contact surface,
wherein said annular flange is received in a groove in a ball valve body;
wherein when an axial force is applied to said annular flange, a seal is created between the ball valve body and the contact surface and the second end is moveable in a cantilever motion such that a portion of the ball member contacts a portion of the sealing surface when the ball member is axially displaced.

22. (New) The seat ring of claim 21, wherein said seat ring is comprised of thermoplastic material.

23. (New) The seat ring of claim 22, wherein said thermoplastic material is polyetheretherketone.

24. (New) A seat ring for a ball valve comprising:
a first end, and a middle portion and a second end;
the first end having a sealing surface configured to receive a portion of a ball member;

Serial No.: 10/708,293
Art Unit: 3754
Examiner: P. Hirsch
November 17, 2004
Page 3 of 5

the middle portion having an engaging surface, wherein when an axial force is applied to the engaging surface, a seal is created between the ball member and the sealing surface;

the second end having an annular flange with a contact surface wherein said annular flange is received in a groove in a ball valve body;

wherein when an axial force is applied to said annular flange, a seal is created between the ball valve body and the contact surface and the second end is moveable in a cantilever motion when the ball member is axially displaced,

wherein the sealing surface is angled such that when the ball member moves axially and the second end moves in a cantilever motion, a portion of the ball member contacts a portion of the sealing surface.

25. (New) The seat ring of claim 24, wherein said seat ring is comprised of thermoplastic material.

26. (New) The seat ring of claim 25, wherein said thermoplastic material is polyetheretherketone.

27. (New) A seat ring for a ball valve comprising:

a first end and a second end;

the first end having a sealing surface configured to receive a portion of a ball member;

the second end having an annular flange with a cut out portion and a contact surface wherein said annular flange is received in a groove in a ball valve body, wherein said contact surface is angled such that only a corner of the contact surface contacts the groove and when an axially force is applied to said annular flange, a seal is

Serial No.: 10/708,293
Art. Unit: 3754
Examiner: P. Hirsch
November 17, 2004
Page 4 of 5

created between the annular flange and the ball valve body at the corner of the contact surface and the second end is moveable in a cantilever motion when the ball member is axially displaced such that a portion of the ball member contacts a portion of the sealing surface.

28. (New) The seat ring of claim 27, wherein said seat ring is comprised of thermoplastic material.

29. (New) The seat ring of claim 28, wherein said thermoplastic material is polyetheretherketone.